642.

330.82

SUMMARY OF WORK DONE ON INSECT CONTROL PROJECTS IN CRATER LAKE NATIONAL PARK SEASON OF 1929

WM.C. GODFREY
CRATER LAKE NATIONAL PARK, OREGON

FILE COPY FOREST INSECT LABORATORY, STANFORD UNIVERSITY CALIFORNIA

330.c1

SUMMARY OF WORK DONE ON INSECT CONTROL PROJECTS IN CRATER LAKE NATIONAL PARK SEASON OF 1929

A survey was made of the areas affected by the mountain pine beetle (Dendroctonus monticolae) in the lodgepole pine stands of Crater Lake National Park during August, 1928. As a result of this survey, a report of conditions on these infested areas was submitted to the Office of the Park Superintendent by J.E. Patterson, Assistant Entomologist from the Forest Insect Laboratory, Stanford University, California.

In this report it was estimated that on the various areas comprising 7,100 acres throughout the Park, 4,500 trees would have to be treated during the season of 1929 to check the invasion of the mountain pine beetle in Crater Lake National Park.

The infested areas included in the report were as follows:

Unit Area	Infested Acreage	No. Trees Treated
Pinnacles Valley	2,000	500
Munson Valley	960	700
Anna Spring and Divide above White Horse	1,260	1,300
Castle Creek	2,880	2,000
Total	7,100	4,500

Funds allotted for insect control work to other National Parks were reallotted to Crater Lake National Park, to be used on control work in these infested areas in the order given:

Mesa Verde National Park	$4,000
Yellowstone "	3,000
Rocky Mountain "	2,000
Total	$9,000

In order to carry out the plan of control work in the prescribed territory before the flight of the beetles, it was necessary to move camp equipment and supplies to the areas of infestation as early as possible. The first attempt was made during the last week of April, when a crew of 7 men were employed on this initial attempt; and although the snow was unusually soft and ranging in depth up to six feet, the crew arrived at the West Entrance to the Park at noon April 28.

Copies to FCC
D.F. 6

Equipment and supplies were transported over the snow with a caterpillar tractor and two bobsleds to Anna Spring, where camp was established on May 5. The snow had not packed sufficiently to permit treating crews to work through the infested areas, and upon the recommendation of J.E. Patterson, Assistant Entomologist, the idea of attempting control work was postponed until conditions were more favorable.

OnnMay 6 the men who formed the crew that broke the road to Anna Spring were dismissed, and no attempt was made toward establishing control camps until May 17, when a crew of 30 men were employed and sent into the Park. With this number the first control camp was established at Anna Spring, and on May 20 12 men were employed and sent into the Park to fill out another crew.

The second control camp was established on Munson Creek on May 21, with a crew of 23 men.

A third control camp was established at Lost Creek Station, on the Pinnacles Valley area, on June 7. A crew of 21 men were employed in this camp.

Work was completed on the Munson Creek area on June 6, and this camp was moved to the White Horse area.

The Anna Creek area was completed on June 7, and control work on the infested area between the Middle Fork and East Fork of Anna Creek was started by the same crew on June 8.

Although this area had not been included in the original report of 1928, it proved to be the heaviest infested area within the boundaries of the Park, and control work was continued on into the month of July.

The number of infested trees treated during the season exceeded the number included in the original report by 18,739 trees. The total number of infested trees treated on these various areas are as follows:

Unit Area	No. Trees Treated
Pinnacles Valley	5,199
Munson Valley	3,389
Anna Spring and divide above White Horse	5,881
Castle Creek	2,503
Middle and East Forks, Anna Creek	6,267
Total	23,239

A total of $17,058.91 was spent on this work; Where infested trees had been felled along the highways and in recreation areas the cost of clean-up work or landscaping of these areas, such as sawing stumps, hauling the trees back from view and disposing of the debris, is included in the total cost to August 1.

The method applied to the treating of the infested areas of the control project is known as the solar heat method of bark beetle control. In the application of this method the direct rays of the sun are utilized to kill the beetle broods, obviating the use of fire or the necessity of peeling the logs.

In addition to the control operations in the Park, a small amount of control work was done in the yellow pine stands at the South Entrance. The infestation in this stand was caused by the western pine beetle (Dendroctonus brevicomis); eleven trees in all were treated, the cost of which is included in the total costs of the season's operation.

Control work was carried on until July 8, when work was abandoned, due to the beetles having emerged from the host trees and taken flight.

At this time a total of 26,109 infested trees had been recorded by the spotting crews and approximately 1200 infested trees that had not yet been spotted, bringing the total number of infested trees up to 27,309.

Of this number 23,239 infested trees have been treated, leaving 4,070 infested trees which we have been unable to treat, and from which the new brood of beetles have taken flight.

WM. C. GODFREY.